UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK		
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UNITED STATES OF AMERICA	:	
- v	:	22 G 10 (10)
AVRAHAM EISENBERG,	:	23 Cr. 10 (AS)
Defendant.	:	
	X	

MOTION TO EXCLUDE PROPOSED TESTIMONY OF JEREMY SHERIDAN AND JOHN MONTGOMERY

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PRELIMINARY STATEMENT

Avraham Eisenberg, the defendant, orchestrated a scheme to drain over \$110 million of cryptocurrency from the Mango Markets platform. He did so by selling himself a massive "Perpetual" on Mango Markets, manipulating the price of those Perpetuals by artificially inflating the price of MNGO relative to USDC, and then lying about his intent to repay, to pay interest, and the value of his collateral to fraudulently obtain cryptocurrency from the platform.

Eisenberg has disclosed his intention to call two expert witnesses. The first, Jeremy Sheridan, will speculate about Eisenberg's state of mind during his scheme and the intent of the Mango Markets protocol designers. This testimony attempts to shift responsibility from Eisenberg to Mango Markets, blaming Mango Markets for not anticipating and stopping his crime. The second, Dr. John Montgomery, steps into the judge's and the jury's shoes: He seeks to intrude on this Court's instructions defining a "swap" with testimony about what qualifies as a "conventional" swap, and to intrude on the jury's job to decide whether Eisenberg created an "artificial" price.

This proposed expert testimony is not proper and will confuse and mislead the jury. As an initial matter, blaming the victim is not a defense to the charged crimes, and no expert can opine on the intent of the defendant or third parties—it is the jury's job to determine intent. In the same way, no expert can intrude on the role of the Court to explain the law and of the jury to apply the law to the facts. Further, testimony about irrelevant economic concepts will only distract the jury from the factual issues in this trial. A jury must decide whether the defendant's conduct was commodities fraud, commodities manipulation, and wire fraud. Testimony from both experts should therefore be precluded in its entirety, or, at a minimum, strictly curtailed.

BACKGROUND

On January 9, 2023, a Grand Jury in the Southern District of New York returned an indictment charging the defendant with commodities fraud, in violation of Title 7, United States

Code, Sections 9(1) and 13(a)(5) and Title 17, Code of Federal Regulations, Section 180.1; commodities manipulation, in violation of Title 7, United States Code, Section 13(a)(2); and wire fraud, in violation of Title 18, United States Code, Sections 1343 and 2. As outlined in the Government's motions *in limine*, Dkt. No. 77, these charges arise from the defendant's fraudulent scheme to steal over \$110 million worth of cryptocurrency from Mango Markets customers.

On October 30, 2023, the defendant provided his initial expert notice, which is attached as Exhibit A and in which the defendant identified two experts he may call during trial: Mr. Sheridan and Dr. Montgomery. On January 12, 2024, the defendant provided a supplemental disclosure of opinions that these experts intend to offer (the "Expert Notice"), which is attached as Exhibit B.

According to the Expert Notice, if allowed by the Court, Mr. Sheridan, a former law enforcement officer with no background in Mango Markets, intends to opine that protocol designers intend "to, in some instances, enable conduct, and in others, prevent it." (Expert Notice at 2.) He then will essentially offer a closing argument that walks the jury through Mango Markets documents and states, in multiple ways, that defendant's trades were "not prohibited" by the Mango Markets protocol and did not require manipulating Mango Markets code. (*Id.* at 2-3.) Further, he will opine that Mango Markets had no terms of services at the time—"it only gave a warning to users." (*Id.* at 2.) In offering those opinions, Mr. Sheridan intends to provide "background testimony" on the creation of the Mango Markets protocol, changes to the protocol over time, and how the pricing oracles operation was publicly known. (*Id.*)

This culminates in an opinion that transparently blames the victims for the defendant's scheme and recasts the defendant's intent as a heroic effort to "highlight[] systematic vulnerabilities" on Mango Markets and opines that "[l]osses were a natural consequence" of the

MNGO token. (*Id.* at 3.) To get there, Mr. Sheridan intends to speculate about the defendant's intent, hoping to explain how the trading "brought to light the significant impact of low liquidity of certain tokens" and conduct a reading of the Mango Market's protocol; a "security audit" prepared by a third party; and the Mango Markets' Litepaper. (*Id.* at 3-5.) To the extent Mr. Sheridan puts any of his own gloss on these third-party documents, he does so to shift the blame from Eisenberg to Mango Market's "absence of robust risk management and governance frameworks." (*Id.* at 5.)

Dr. Montgomery, for his part, intends to usurp the role of the jury and offer an opinion—without any hint of analysis—on the ultimate question of whether the price of MNGO Perpetuals on October 11, 2022 was artificial. (*Id.* at 7-8.) He then gives improper opinions that range from instructing the jury on a legal concept—the definition of a swap—to economic ideas that appear to have no relevance to speculating about the intent of traders in financial markets. (*Id.*)

LEGAL STANDARD

Federal Rule of Evidence 702 provides that a "witness who is qualified as an expert by knowledge, skill, experience, training, or education" may offer an opinion if "the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue," and the testimony is the product of reliable facts and methods that the expert has reliably applied to the case. Fed. R. Evid. 702. Districts courts play a "gatekeeping role" to "ensur[e] that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 597-80 (1993).

The first requirement—that the "expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue"—

that are properly left for the jury, such as "interpretations of conduct or views as to the motivation of parties." *In re Rezulin Prods. Liability Litig.*, 309 F. Supp. 2d 531, 541 (S.D.N.Y. 2004). Interpretations of certain actions and inferences about "the intent or motive" of an individual "lie outside the bounds of expert testimony." *Id.* at 547; *see, e.g., Kewazinga Corp. v. Microsoft Corp.*, No. 18 Civ. 4500 (GHW), 2021 WL 4066597, at *15 (S.D.N.Y. Sept. 1, 2021) ("Expert opinions about beliefs, intents, or motives are inadmissible."); *Bd. of Trs. of AFTRA Ret. Fund v. JPMorgan Chase Bank*, No. 9 Civ. 686 (SAS), 2011 WL 6288415, at *8 (S.D.N.Y. Dec. 15, 2011) ("[O]pinions concerning state of mind are an inappropriate topic for expert opinion.").

Second, even testimony that is properly based on scientific, technical, or specified knowledge must "fit'... the facts of the case." *City of Provid., R.I. v. Bats Glob. Mkts.*, No. 14 Civ. 2811 (JMF), 2022 WL 902402, at *8 (S.D.N.Y. Mar. 28, 2022) (quoting *Daubert*, 509 U.S. at 591). This requires the expert testimony to stay in bounds: The testimony must be directly pertinent to an issue that the jury has to resolve, but it must not "usurp either the role of the trial judge in instructing the jury as to the applicable law or the role of the jury in applying that law to the facts before it." *United States v. Lumpkin*, 192 F.3d 280, 290 (2d Cir. 1999) (internal citation omitted); *accord Rezulin Prods.*, 309 F. Supp. 2d at 541.

Rule 702 also requires that the proffered expert testimony "is the product of reliable principles and methods," and "reflects a reliable application of the principles and methods to the facts of the case." Fed. R. Evid. 702; *accord Daubert*, 509 U.S. at 593-94. The Court is not required "to admit opinion evidence that is connected to [the facts] only by the *ipse dixit* of the expert." *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). "[W]hen an expert opinion is based

on data, a methodology, or studies that are simply inadequate to support the conclusions reached, *Daubert* and Rule 702 mandate the exclusion of that unreliable opinion testimony." *Amorgianos* v. *National Railroad Passenger Corp.*, 303 F.3d 256, 266 (2d Cir. 2002).

Expert testimony may also be excluded under Federal Rules of Evidence 402 and 403 if it is irrelevant or its probative value is "substantially outweighed by a danger of . . . unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence." Rule 403 has a "uniquely important role . . . in a district court's scrutiny of expert testimony, given the unique weight such evidence may have in a jury's deliberation." *Nimely v. City of New York*, 414 F.3d 381, 397 (2d Cir. 2005).

ARGUMENT

I. THE COURT SHOULD EXCLUDE MR. SHERIDAN'S PROPOSED TESTIMONY.

Mr. Sheridan's testimony violates many of the fundamental rules governing expert testimony. If allowed, he intends to speculate about third parties' intent, including the defendant himself, and then offer an impermissible blame-the-victim defense. What is more, much of his purported analysis is not expert analysis in any sense. This testimony should be precluded.

A. Testimony About the Protocol Designers' Intent Is Inadmissible State-of-Mind Testimony and Outside Mr. Sheridan's Expertise

Mr. Sheridan first proposes to impermissibly speculate about the Mango Markets protocol designers' intent. Specifically, he will opine that the protocols of open-source software "are designed to, in some instances, enable conduct, and in others, prevent it." (Expert Notice at 2.) He goes on to opine that Mango Markets had no terms of service at the time of the defendant's scheme, even though that was "technically feasible," and plans to detail changes to the Mango

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Markets protocol after the scheme was complete. (*Id.*) This builds to his opinion that the defendant's trades "were not prohibited by the Mango Markets protocol." (*Id.*)

To begin, as explained in the Government's motion *in limine*, the defense should not be permitted to argue—through Mr. Sheridan's testimony or otherwise—that market manipulation and fraud are not crimes whenever they are technologically possible or not prohibited by terms of service. The criminal laws protect people from market manipulation and fraud regardless of whether privately designed computer codes and contracts do so. That market manipulation and fraud were technologically feasible on Mango Markets, or that Mango Markets lacked terms of service, therefore is not a defense to the charges in this case. (*See* Gov't Motion, ECF No. 77, at 10-16.) In short, the designers of the Mango Markets protocols are not on trial.

Nonetheless, even if the defense were to be permitted to make this argument, it should not come in the form of expert testimony from Mr. Sheridan. First, the proposed opinions are inadmissible testimony about what the Mango Markets developers intended. Mr. Sheridan's opinions about the Mango Markets protocol designers' intent to "enable conduct," and to allow "parties [to] significantly overleverage transactions," is outside of the scope of permissible expert testimony. (Expert Notice at 2.) Experts are not permitted to testify "concerning the motive, intent, and state of mind" of people or entities. *Rezulin Prods.*, 309 F. Supp. 2d at 545. Such testimony is inadmissible "[b]ecause science has not yet invented a way to read minds, 'inferences about the intent or motive of parties or others lie outside the bounds of expert testimony." *AU New Haven, LLC v. YKK Corp.*, No. 15 Civ. 3411 (GHW), 2019 WL 1254763, at *13 (S.D.N.Y. Mar. 19, 2019) (quoting *Rezulin Prods.*, 309 F. Supp. 2d at 547); *accord In re Fosamax Prods. Liability Litig.*, 645 F. Supp. 2d 164, 192 (S.D.N.Y. 2009) (finding that opinions about "intent,

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motives, or state of mind . . . have no basis in any relevant body of knowledge or expertise"); *Deutsch v. Novartis Pharms. Corp.*, 768 F. Supp. 2d 420, 442-43 (E.D.N.Y. 2011) (same). "Instead, juries must answer questions of intent with the lay tools that they always have: examination of testimony and documents, and assessment of credibility." *AU New Haven*, 2019 WL 1254763, at *14. Accordingly, Mr. Sheridan should not opine about the Mango Markets protocol designers' intent.

Second, Mr. Sheridan has no expertise in Mango Markets' systems and protocols, which is another reason to exclude this testimony. Mr. Sheridan did not work at Mango Markets and has no insight into the protocols' design. Rather, Mr. Sheridan has read the Mango Markets protocols and documents, and wishes to "propound a particular interpretation" of those documents, which is "not justification for the admission of expert testimony." *LinkCo, Inc. v. Fujitsu Ltd.*, No. 00 Civ. 7242 (SAS), 2002 WL 1585551, at *2 (S.D.N.Y. July 16, 2002) (internal citation omitted). Mr. Sheridan's opinion—based on his background and document review—is not expert testimony.

In the same way, Mr. Sheridan's opinion that Mango Markets protocols were designed to allow parties to "significantly overleverage transactions," Expert Notice at 2, is also not reliable under Rule 702. Mr. Sheridan does not set forth any criteria, let alone a reliable one, for claiming that transactions were "overleverage[d]," or "significantly overleverage[d]." This is just Mr. Sheridan's gloss on a fact about the Mango Markets protocol and not expert analysis.

These restrictions on Mr. Sheridan's proposed testimony are particularly relevant because the best source for information about Mango Markets protocols is a witness from Mango Markets, and any such expert testimony would be duplicative. *See United States v. Newkirk*, 684 F. App'x 95, 97 (2d Cir. 2017) ("In these circumstances, the district court acted well within its discretion in

concluding that other witnesses with financial backgrounds were competent to explain the transactions and related terminology presented by the case."); *United States v. Mendlowitz*, No. 17 Cr. 248 (VSB), 2019 WL 6977120, at *7 (S.D.N.Y. Dec. 20, 2019) ("Because many of these witnesses had prior experience working for credit card processors or had knowledge generally about the industry because of their work history, there was no need for expert testimony related to

industry practice. In any event, even if such testimony were appropriately the subject for expert testimony, [the expert's] testimony would have been duplicative of the lay witnesses called during

the trial."); Fujitsu, 2002 WL 1585551 at *2. The Government intends to call such a witness, so

generalized expert testimony is unnecessary.

In short, this proposed expert testimony is impermissible twice over. An expert may not provide his own narrative gloss on the facts of a case. *See In re Elysium Health-ChromaDex Litig.*, No. 17 Civ. 7394 (LJL), 2022 WL 421135, at *29 (S.D.N.Y. Feb. 11, 2022) (collecting cases). And the gloss that Mr. Sheridan intends to provide, for example, by characterizing the design as allowing transactions that were "significantly overleverage[d]," impermissibly goes to the Mango Markets protocol designers' intentions and states of mind. (Expert Notice at 2.)

B. Opinions about Whether the Defendant's Trades Were "Prohibited" or Constituted a "Code Violation," Are Irrelevant, Inadmissible, and Not Properly Expert Testimony

Although the defense has represented that it "is not asserting a so-called 'code is law' defense," Def. Opp., Dkt. No. 79 at 9, the defense's Expert Notice previews that Mr. Sheridan will do just that. Mr. Sheridan intends to opine that "the trades allegedly executed by Mr. Eisenberg were not prohibited by the Mango Markets protocol" and that Mango Markets could have had terms of service, but did not. (Expert Notice at 2.) He states that the defendant's trading was not

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a "Code Violation," and "required no manipulation of the Mango Markets or Solana Code." (*Id.* at 3.) Mr. Sheridan also intends to opine that Mango Markets did not have terms of service at the time of the defendant's scheme. (*Id.* at 2.) Those opinions are irrelevant and unfairly prejudicial.

First, as discussed, that market manipulation and fraud were technologically feasible on Mango Markets, or that Mango Markets lacked terms of service, is not a defense. *See, e.g., SEC v. Vali Management Partners*, No. 21-453, 2022 WL 2155094, at *1 (2d Cir. 2022) (holding that "open-market transactions that are not inherently manipulative may constitute manipulative activity when accompanied by manipulative intent" (internal bracket, quotation marks, and citation omitted)). These open-market trades are, of course, technologically feasible, and the Second Circuit has never required a showing that any terms of service prohibited the conduct at issue.

Moreover, the defendant is not charged in this case with manipulating the Mango Markets code. *See, e.g.*, 18 U.S.C. § 1030(a)(2) ("Whoever . . . intentionally accesses a computer without authorization or exceeds authorized access"). Indeed, the defendant concedes that "technological feasibility alone is not a defense" and represents that "the defense has not and will not argue that the jury must acquit Mr. Eisenberg solely because his conduct complied with Mango Markets' rules." (Dkt. 79 at 10.) Accordingly, the defense should not be permitted to present concededly improper arguments through expert opinions that the trades were not "prohibited," was not a "[c]ode [v]iolation," or that there were no terms of service. (Expert Notice at 2-4.)

Second, Mr. Sheridan's proposed testimony implies a legal conclusion that he is not qualified or permitted to give. The point of Mr. Sheridan's proposed opinion is to excuse the defendant's behavior as legal because it was "not prohibited" on the protocol or by the terms of service and not a code violation. That is not only wrong, as discussed above, but also inadmissible.

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United States v. Bilzerian, 926 F.2d 1285, 1294 (2d Cir. 1991) ("As a general rule an expert's testimony on issues of law is inadmissible."). The Second Circuit has held that such expert testimony should be excluded. See, e.g., Red Rock Commodities, Ltd. v. Standard Chartered Bank, 140 F.3d 420, 423-24 (2d Cir. 1998); Hygh v. Jacobs, 961 F.2d 359, 363-64 (2d Cir. 1992). Indeed, "[t]he rule prohibiting experts from providing their legal opinions or conclusions is so well-established that it is often deemed a basic premise or assumption of evidence law—a kind of axiomatic principle." In re Initial Pub. Offering Sec. Litig., 174 F. Supp. 2d 61, 64 (S.D.N.Y. 2001). Mr. Sheridan's proposed testimony violates that principle. Whether the defendant's scheme was "prohibited" is a legal question that requires the jury to apply the facts to the law.

Third, testimony that the defendant complied with the Mango Markets protocol and did not "alter[]" the code is inadmissible under Rules 401 and 403 because it is irrelevant and confusing. The defendant is not charged with violating or altering the Mango Markets protocol or the Mango Markets terms of service, so measuring his conduct against those standards is not relevant. Mr. Sheridan's testimony, offered by an "expert" with no expertise in Mango Markets or its terms of service, would have little probative value and yet would muddle the issues for the jurors, who will be confused about whether, and how, the protocols and terms of service intersect with the law.

Finally, a separate basis to exclude this opinion is that it is not expert testimony under Rule 702. In essence, Mr. Sheridan plans to read excerpts from publicly available documents in evidence and observe that there are no terms of service. This is lay testimony that does not require any expertise. Indeed, a paralegal or an employee from Mango Markets could offer this same analysis—it should not be introduced through an expert. Further still, Mr. Sheridan's testimony presents an acute risk of jury confusion under Rule 403 because of his background in law

enforcement. If allowed to offer these opinions, a jury may interpret Mr. Sheridan, as an expert and former law enforcement officer, as offering an opinion that the trades were not illegal simply

because there was no terms of service.

Mr. Sheridan's proposed testimony is an effort to put before the jury the defense's judgment about the ultimate issues in this case in the guise of expert evidence. That is not allowed; it is not an expert's role to substitute his "judgment for the jury's." *Rezulin Prods.*, 309 F. Supp. 2d at 541 n.23; *see also* Fed. R. Evid. 704(b).

C. Testimony about the Defendant's "Strategic Utilization of Market Mechanics" Is Impermissible State-of Mind Testimony

Mr. Sheridan's proposed testimony about the defendant's motives is not allowed under Rule 702 or 704. Indeed, Mr. Sheridan proposes to describe a theory of "Strategic Utilization of Market Mechanics without Code Violation," and to state that the defendant's trading "highlight[ed] systematic vulnerabilities such as oracle weaknesses and low liquidity token risks." (Expert Notice at 3.) The point of this testimony is to cast Eisenberg as having benign intentions to bring attention to a flaw in the Mango Markets code, rather than criminal intent to steal.

Each step of this testimony runs afoul of the rule that experts cannot testify about a person's intent or motives, including the "intent or motives underlying . . . certain business transactions." *Rezulin Prods.*, 309 F. Supp. 2d at 546. Mr. Sheridan is attempting to step into the jury's shoes and draw a conclusion about the defendant's intention—a subject about which he has no expertise. Mr. Sheridan is not an expert in the defendant's trading strategy, and he is not qualified to say that the defendant intended to highlight "vulnerabilities" in the Mango Markets code, rather than reap a \$110 million payday. Claiming to know the defendant's "strateg[y]" is the same thing as claiming to know what was in the defendant's head, an area that is outside Mr. Sheridan's

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knowledge and expertise. *Fosamax Prods.*, 645 F. Supp. 2d at 192 (remarking that the expert did not have "the ability to read minds").

Mr. Sheridan's opinion, which amounts to recasting the defendant as a hero who "highlight[ed] systemic vulnerabilities," is unreliable because it does not account for Mango Markets' bug bounty process whereby Mango Markets offered bounties for "responsible disclosure of potential vulnerabilities," *see* Expert Notice at 4-5, which capped payments to bug reporters well south of what the defendant stole from Mango Markets. The defendant did not use this bug bounty protocol because he was not seeking to alert Mango Markets to vulnerabilities, as Mr. Sheridan opines—rather, the defendant exploited Mango Markets to the tune of \$110 million.

And even if Mr. Sheridan had the ability to make such a judgment about the defendant's intentions, Rule 704 would bar him from doing so. Such testimony would be an opinion about whether the defendant's intent was to manipulate the market or to achieve some other goal, which "constitutes an element of the crime charged [and] a defense." Fed. R. Evid. 704(b). In other words, this is testimony about "whether the defendant did or did not have a mental state . . . that constitutes an element of the crime charged or of a defense," and so is prohibited not only by Rule 702, but also by Rule 704(b). A defendant may not "tell the jury [his] intentions through the mouth[] of" an expert witness. *United States v. Rahman*, 189 F.3d 88, 136 (2d Cir. 1999).

D. Mr. Sheridan's Irrelevant Victim Blaming Is Impermissible

Mr. Sheridan next proposes to read certain documents into the record to shift blame from the defendant to Mango Markets. Mr. Sheridan plans to conduct a "Terms of Service Analysis," review a security audit conducted by a third party, and review Mango Markets' Litepaper. (Expert Notice at 4-5.) None of this is the proper subject of expert testimony, but it builds to further

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impermissible and irrelevant opinions about Mango Markets' "Lack of Risk Management and Governance Frameworks." (*Id.* at 5.) Such blame-the-victim tactics should be precluded.

To start, Mr. Sheridan's reading of the terms of service, Mango Markets Litepaper, and the third-party security audit are inadmissible under Rule 702 because it is not expert testimony. Mr. Sheridan has no expertise in Mango Markets' protocol, terms of service, or the audit. As discussed, Mr. Sheridan is reviewing documents and then "propound[ing] a particular interpretation." *Fujitsu*, 2002 WL 1585551, at *2. This is not expert testimony and should be precluded.

For example, Mr. Sheridan's comparison of a third-party audit to Mango Markets Litepaper is irrelevant. Mr. Sheridan claims that Neodyme AG conducted a security audit that "failed to address the risks discussed in Mango Markets' documentation," such as the socialization of losses, oracle error, illiquid deposits, and smart contract exploit. (Expert Notice at 4-5.) This comparison is irrelevant. What the third-party review of the Mango Markets protocol found, let alone that it did not mention certain risks that are mentioned in Mango Markets' Litepaper, has no relevance.

Although it is not clear from the Expert Notice what issue this testimony relates to, the apparent upshot is that the defendant's \$110 million exploit was Mango Market's fault for not having better protocols, terms of service, or risk management. This is inadmissible under Rules 401 and 403 because blaming the victim is not a defense to the charged crimes. *See, e.g., United States v. James*, 607 F. Supp. 3d 246, 255 (E.D.N.Y. 2022) ("[A] defendant may not advance a 'blame the victim' defense."). Indeed, the Second Circuit has repeatedly recognized that "a victim's negligence is not a defense under the federal fraud statutes." *United States v. Frenkel*, 682 F. App'x 20, 22 (2d Cir. 2017). That is because, among other things, "reliance is not an element of criminal fraud." *United States v. Weaver*, 860 F.3d 90, 96 (2d Cir. 2017).

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For example, in a case involving a mortgage fraud scheme, it was no defense that the victim lender "could have discovered based on external sources that the representation [in the loan application] was false," because the victim's "lack of sophistication is not relevant to the intent element of mail or wire fraud." *United States v. Amico*, 486 F.3d 764, 780 (2d Cir. 2007); *see also United States v. Isola*, 548 F. App'x 723, 725 (2d Cir. 2013) (finding lender's negligence also "irrelevant to the materiality of [the defendant's] false statements"). And in a prosecution for inducement of travel for a fraudulent purpose, the Second Circuit affirmed the district court's decision to restrict cross-examination into the victim's "vigilance (or lack thereof)" in his dealings with the defendant, firmly "reject[ing] [the defendant's] argument that the foolishness of [the victim's] belief in [the defendant's] fraudulent scheme somehow vitiates [the defendant's] fraudulent intent." *United States v. Thomas*, 377 F.3d 232, 241, 243 (2d Cir. 2004).

These principles also have been applied to other fraud prosecutions. *See, e.g., United States v. Udeokoro*, No. 17 Cr. 629 (AMD), 2023 WL 4138477, at *7 (E.D.N.Y. June 22, 2023) ("The first argument is a variation of the defense that courts have rejected—that the IPAs had some obligation to catch the defendants in the act of misrepresenting the kind of equipment for which they sought reimbursement, and that their failure to do so absolved the defendants from criminal liability."); *United States v. Ahmed*, No. 14 Cr. 277 (DLI), 2016 WL 8732355, at *4 (E.D.N.Y. June 24, 2016) ("Defendant may not argue that he did not intend to defraud Medicare because Medicare paid his claims, negligently or otherwise."); *United States v. Lesniewski*, No. 11 Cr. 1091 (VM), 2013 WL 3776235, at *2 (S.D.N.Y. July 12, 2013) ("[A]ny evidence proffered by Defendants for the purpose of establishing that the [United States Railroad Board] was negligent or careless would be irrelevant to the inquiry of whether they possessed the requisite intent to

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commit the fraud at issue in this case"), *aff'd sum nom United States v. Rutigliano*, 614 F. App'x 542 (2d Cir. 2015); *United States v. Nekritin*, No. 10 Cr. 491 (KAM), 2011 WL 2462744, at *7 (E.D.N.Y. June 17, 2011) (precluding defense from "arguing or presenting evidence that Medicare and Medicaid's payment of their claims is a defense to health care fraud").

No clearer is this impermissible victim blaming tactic than in Mr. Sheridan's purported opinion that "Mango Markets was warned of the possibility of a trade similar to those alleged in this case in March 2022 and ignored it." (Expert Notice at 5.) Mr. Sheridan relies on a blog post that appears to have been published the day after the defendant's attack and that contains a screenshot of messages of an unidentified user identifying a potential issue if someone "manipulated prices and opens a huge long/short against themselves." See "Decoding Mango's Vulnerability," 12, NEPTUNE MUTUAL (Oct. 2022), available at https://neptunemutual.com/blog/decoding-mangos-vulnerability/ (cited in Expert Notice at 5). As an initial matter, and as discussed, Mr. Sheridan cannot be a vehicle for otherwise inadmissible evidence about the mental state and knowledge of the Mango Markets protocol designers. Experts are not permitted to testify "concerning the motive, intent, and state of mind" of people or entities. Rezulin Prods., 309 F. Supp. 2d at 545. These opinions are also unreliable and inadmissible under Rules 401 and 403. As to reliability, Mr. Sheridan has no basis to opine on the knowledge of Mango Markets protocol designers. This is just Mr. Sheridan's say-so and should be precluded.

But, more fundamentally, it does not matter if Mango Markets was aware that someone could potentially commit fraud and market manipulation before the defendant committed fraud and market manipulation. It is the actions and intentions of the defendant that are at issue at this

trial, not those of Mango Markets. This testimony, then, has no evidentiary value, and is an invitation for the jury to decide the case on an impermissible "blame-the-victim" theory.

At bottom, Mr. Sheridan is not a proper vehicle to discuss these documents. If Mr. Sheridan is going to read these documents into the record, that is not proper expert testimony and can be accomplished through a lay witness. If instead, he intends to provide his own blame-the-victim gloss, that is improper and irrelevant, and he is doing so without foundation. Here, where the purported expert is a former law enforcement officer, there is a danger of having him suggest that this conduct was legal because it was not prohibited by terms of service. Mr. Sheridan's proposed testimony is a closing argument masquerading as an expert's opinions and should be precluded.

II. THE COURT SHOULD EXCLUDE DR. MONTGOMERY'S PROPOSED TESTIMONY.

Dr. Montgomery's testimony seeks to replace the Court's instructions with his own, and to step into the jury box to give an opinion on whether the defendant created an artificial price. All the while, Dr. Montgomery fails to show his work or offer any analysis, let alone the reliable analysis required under Rule 702. This testimony should be precluded.

A. Testimony About "Conventional" Futures and Swaps Is Irrelevant and Impermissible

Dr. Montgomery's first improper opinion attempts to introduce to the jury his own definition of a legal term—"conventional" swap—and invite the jury to measure the MNGO Perpetual against his definition. Dr. Montgomery plans to testify about "conventional futures and swaps contracts" as well "traditional" swaps and compare them to the "perpetual futures offered on Mango Markets." (Expert Disclosure at 7.) This opinion, which usurps the Court's role to

instruct the jury on the definition of a swap, and the jury's role to apply that legal instruction to the facts, is unreliable, and should be excluded under Rules 702 and 403.

A principle underlying Rule 702 is that it is the court's job to instruct the jury on the law, and the jury's job to apply the facts to that law. *Lumpkin*, 192 F.3d at 290. Dr. Montgomery's proposed testimony intrudes on those tasks. This Court will instruct the jury on the legal meaning of "swap" and when a scheme is in connection with a swap. Dr. Montgomery, however, sets his own definition of a "conventional" or "traditional" swap. *See Hygh*, 961 F.2d at 364 (an expert's testimony defining "deadly physical force" was inappropriate because an expert may not communicate "a legal standard—explicit or implicit—to the jury"); *accord Marx & Co., Inc. v. Diners' Club Inc.*, 550 F.2d 505, 509-10 (2d Cir. 1977). That is improper.

This opinion is also unreliable. Dr. Montgomery provides no basis to conclude that his understanding of "conventional" or "traditional" swaps tracks the legal meaning of swaps. This creates a significant risk that not only will Dr. Montgomery's opinion intrude on the Court's role instructing the jury, but it will also conflict with the role, confusing the jury.

In the same way, it is the jury's job to decide whether the MNGO Perpetuals in this case are "swaps." *See United States v. Scop*, 846 F.2d 135, 140 (2d Cir. 1988) (holding that it was improper for an expert witness to draw "directly upon the language of the statute" because it supplanted the role of the jury). But Dr. Montgomery takes that on, too, proposing to opine that MNGO Perpetuals "differ[ed]" from "conventional" swaps. *Lumpkin*, 192 F.3d at 289 (holding that the jury must "apply[] th[e] law to the facts before it") (internal citation omitted).

In *United States v. Chastain*, Judge Furman precluded expert testimony that similarly tried to provide an expert-generated definition of a legal term and set up a false comparison: "[The

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expert] may not testify about how 'confidential (or more precisely, proprietary) business information' is understood 'in the academic literature' or whether the information at issue here qualifies." No. 22 Cr. 305 (JMF), 2023 WL 2966643, at *9 (S.D.N.Y. Apr. 17, 2023). This opinion was improper because, it "not only intrudes on the role of the Court and jury, but also suffers from a relevance problem. Put simply, how 'confidential business information' is understood in the academic literature is utterly irrelevant. 'Confidential business information' is a legal term of art and will be defined by the Court in its instructions to the jury." *Id.* at *9 n.5. Just as in *Chastain*, both aspects of Dr. Montgomery's proposed testimony overstep the bounds of permissible expert testimony, and should be excluded.

B. Testimony About the "Artificiality" of Mango Perpetual Prices and "Fundamental Value" of MNGO Usurps the Jury's Role and Is Impermissible

In his most plainly improper opinion, Dr. Montgomery plans to explain that the price of MNGO Perpetuals at the time of the defendant's alleged training was "not artificial." (Expert Notice at 7.) Dr. Montgomery aims to opine that because MNGO is thin and illiquid, "current trading price may not accurately reflect a fundamental value." (*Id.* at 8.) These opinions, which take the case from the court and the jury should be excluded under Rules 702 and 403.

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These opinions should be excluded because it usurps the Court's role "in instructing the jury as to the applicable law" and the jury's role "in applying that law to the facts before it." *Lumpkin*, 192 F.3d at 289. The meaning of the terms "artificial" as well as the relevance of those concepts, are legal questions the Court will answer in its jury charge. Dr. Montgomery has no expertise in this legal concept, and even if he did, he would not be able to opine on the topic because "testimony on issues of law is inadmissible." *Bilzerian*, 926 F.2d at 1294.

Dr. Montgomery's opinion is further problematic because his notice does not define what he means by "artificial." This is reason alone to exclude his opinion. To the extent there is any difference between Dr. Montgomery's understanding of the term and the legal definitions, his opinion will not be relevant and will present substantial "danger[] of confusing or misleading the jury." *Chastain*, 2023 WL 2966643, at *9.

The substance of Dr. Montgomery's opinion is improper because it addresses the defendant's intent and is unreliable. First, whether a price has been set by the natural interplay of supply and demand or has been artificially impacted depends on the trader's intent—this is established by cases holding that open-market trades—which involve real trades and real counterparties—can be manipulative when accompanied by manipulative intent. *See, e.g., Vali,* 2022 WL 2155094, at *1; *Set Capital LLC v. Credit Suisse Group AG*, 996 F.3d 64, 77 (2d Cir. 2021) (same); *see also, e.g., Gurary v. Winehouse*, 190 F.3d 37, 45 (2d Cir. 1999) ("The gravamen of manipulation is deception of investors into believing that prices at which they purchase and sell securities are determined by the natural interplay of supply and demand, not rigged by manipulators."). Therefore, Dr. Montgomery cannot testify about whether a price was "artificial," without implying that the defendant had no manipulative intent. And an opinion about the

defendant's intent is strictly barred by Rule 704(b).

Second, and equally problematic, Dr. Montgomery's notice does not provide any explanation for how he can opine that the price of MNGO Perpetuals was not artificial on October 11, 2022. The Expert Notice does not outline that Dr. Montgomery has done any analysis to show that the price was not artificial, let alone a reliable analysis as required under Rule 702. Rule 702 requires that expert testimony be "the product of reliable principles and methods" that are "reliably applied . . . to the facts of the case." Courts should not "admit opinion evidence that is connected to [the facts] only by the *ipse dixit* of the expert." *Joiner*, 522 U.S. at 146. Dr. Montgomery, however, has not done anything to reliably analyze the price of MNGO Perpetuals in a manner that is relevant to this case. Most glaringly, there is no information in Dr. Montgomery's notice about the supposed "analysis" he performed on the MNGO Perpetuals pricing. His say-so is not sufficient, and the opinion should be excluded on that basis as well.

Further still, Dr. Montgomery does not describe how his analysis accounts for the drastic increase in the price of MNGO Perpetuals on October 11, 2022 due to the defendant's trading. *See, e.g., Lamarr-Arruz v. CVS Pharmacy, Inc.*, No. 15 Civ. 4261 (JGK), 2017 WL 4277188, at *10 (S.D.N.Y. Sept. 26, 2017) ("To be reliable, a data analysis must account for major variables, including confounding variables."); *Reed Constr. Data v. McGraw-Hill Co.*, 49 F. Supp. 3d 385, 400 (S.D.N.Y. 2014) (holding that analysis "must control for the 'major factors' that might influence the dependent variable"); *see also Bickerstaff v. Vassar College*, 196 F.3d 435, 448-50 (2d Cir. 1999) (rejecting analysis that "failed to account for . . . major factors"); *Wills v. Merada Hess Corp.*, 379 F.3d 32, 50 (2d Cir. 2004) (same). That is not a reliable opinion, and Dr. Montgomery should not be allowed to present it to the jury.

In addition to offering his opinion on the ultimate question of price artificiality, Dr. Montgomery proposes testifying about another undefined term—"fundamental value"—without any apparent relevance. Dr. Montgomery does not explain what "fundamental value" is or how this concept or his opinion on it will help the trier of fact to understand the evidence or to determine a fact in issue, but nonetheless intends to opine that because MNGO was a thinly traded token, its "trading price may not accurately reflect a fundamental value." (Expert Notice at 8.) This opinion does not relate to any fact at issue in the case and is highly likely to confuse or mislead the jury.

Indeed, the question for the jury on the swap manipulation count is whether the defendant intended to cause an artificial price of a swap. The Expert Notice does not explain why the concept of "fundamental value" has any bearing on that issue. (Expert Notice at 8.) It does not explain why the jury needs to understand why a "current trading price may not accurately reflect a fundamental value." *Id.* This opinion should be excluded on that ground alone. Rule 702 requires the proponent of expert testimony to show a reliable connection between the opinion and the facts of the case, rather merely rely on the "*ipse dixit* of the expert," *Joiner*, 522 U.S. at 146.

There is nothing to connect this proposed opinion to the case. Factually, the opinion that "the current trading price may not accurately reflect a fundamental value" of the MNGO token makes little sense in the context of this case which alleges the defendant caused an artificial price of the MNGO Perpetual. What is more, allowing Dr. Montgomery to offer this opinion about "accurately reflect[ing] a fundamental value" carries a substantial risk of confusing or misleading the jury. It might cause them incorrectly to believe that to be artificial, a price must be compared against "fundamental value," whatever that means. The Court, not Dr. Montgomery, will instruct the jury on what constitutes an artificial price and how to determine whether a price is artificial.

Finally, and in the same way that Dr. Montgomery has not outlined any analysis to offer an opinion on "artificiality," Dr. Montgomery does not show that he did any work to opine that MNGO is "thin" or "illiquid," let alone the reliable analysis required by Rule 702. Dr. Montgomery does not, for example, explain how he knows that MNGO is thinly traded, when a token is traded thinly enough to "not accurately reflect a fundamental value," whether he determined if MNGO had a "fundamental value" at times," or whether the value was not "fundamental" because of thin trading. Instead, Dr. Montgomery just is relying on his own sayso. This is yet another reason to exclude this opinion.

C. Testimony About the Intent of Traders in Financial Markets to Conceal Their Trading Strategies Is Impermissible

Dr. Montgomery's proposed opinions regarding the intentions and strategies of financial market traders also should be excluded for improperly providing state-of-mind testimony. The defendant proposes that Dr. Montgomery testify that "it is typical for traders in financial markets to attempt to conceal their trading intentions and strategies from other participants in those markets." (Expert Notice at 8). As discussed above, experts are not permitted to testify "concerning the motive, intent, and state of mind" of people or entities. *Rezulin Prods.*, 309 F. Supp. 2d at 545. Dr. Montgomery also is not an expert on the motivations and expectations of traders in financial markets—those market participants are not homogenous, and may have idiosyncratic reasons for doing things. Dr. Montgomery cannot reliably testify on those topics.

Furthermore, Dr. Montgomery's proposed opinion about the state of mind and intentions of financial market traders is an attempt to have jurors draw an inference about the defendant's intentions and state of mind. His proposed opinion is a barely concealed attempt to testify that the defendant was "attempt[ing] to conceal [his] trading intentions and strategies from other

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participants" because "[i]f information held by [the defendant] leaks to other market participants, the profit opportunity [the defendant] had from the information may be lost as other market participants cause the market quotes and prices to move." (Expert Disclosure at 8.) As set forth above, expert testimony about the defendant's motive, intent, or state of mind is prohibited under Rules 702 and 704 because it "does not aid the jury in making a decision, but rather attempts to substitute the expert's judgment for the jury's." *Rezulin Prods.*, 309 F. Supp. 2d at 541 n.23; *see* Fed. R. Evid. 702; Fed. R. Evid. 704(b).

The proposed testimony about other market participants is also unreliable and inadmissible under Rules 401 and 403. With respect to reliability, Dr. Montgomery's disclosure reveals that he reviewed records pertaining to the defendant and "his experience and research in the economics of trading in financial markets." (Expert Notice at 8.) To be clear, per his curriculum vitae, Dr. Montgomery has no experience as a trader in financial markets, and notably, while he states that his opinion is based on his research into the "economics of trading in financial markets," he does not claim to have studied the intentions and strategies of financial market traders. He has no basis to opine about the actions and intentions of market participants. Moreover, the intentions of market participants are irrelevant; the defendant's actions and intentions are what matter.

Dr. Montgomery's proposed opinions are not designed to give general background to help the jury, but rather to plant in the jurors' minds ideas about the defendant's intentions, motives, and state of mind. A defendant's state of mind is not a proper subject of expert testimony.

D. Testimony About Privately Issued U.S. Dollar-Denominated Instruments Is Confusing and Irrelevant

In a final confusing and irrelevant opinion, Dr. Montgomery intends to opine that "many U.S. dollar-denominated instruments considered part of the U.S. money supply are issued by

private entities," so "[i]ssuance by a private entity is therefore not a unique characteristic of cryptocurrencies." (Expert Notice at 8.) This opinion should be excluded because it is not relevant to any fact at issue and is highly likely to confuse or mislead the jury.

As this Court is aware from the motion to dismiss briefing, one issue for the jury in this case is whether stablecoins, such as USDC, are commodities under the Commodities Exchange Act. Dr. Montgomery's proposed opinion seems to suggest the contorted line of reasoning that, if things the Federal Reserve "consider[s] part of the U.S. money supply are issued by private entities," then stablecoins such as USDC are not commodities, but rather akin to something like "customer deposits at banks." (*Id.*)

This opinion should not go before the jury. For one, whether the Federal Reserve treats some instruments that are "issued by private entities" as part of the U.S. money supply has no relevance to any issue in the case. There is no legal reason why this point (even if it is true) makes it more or less likely that stablecoins, such as USDC, constitute "rights [or] interests . . . in which contracts for future delivery are presently or in the future dealt in" or "other goods and articles," and are therefore commodities under 7 U.S.C. § 1a(9). What the Federal Reserve uses to calculate the money supply is an entirely unrelated issue.

Moreover, it will be extremely misleading to the jury, and a lengthy distraction at trial, to explore what the Federal Reserve treats as part of the money supply; whether certain things it treats as part of the money supply are, in fact, "issued by private entities"; and what relevance that has to any issue the jury will need to decide. Take each issue one at a time. Jurors are highly unlikely to know what the money supply is, or why the Federal Reserve calculates it. Thus, even setting

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the stage for Dr. Montgomery's opinion (and explaining its irrelevance on cross examination) will require a lengthy primer on monetary policy and the role of the Federal Reserve.

Next, the parties will need to explore whether the Federal Reserve does, and does not, treat certain privately issued instruments as part of the money supply. This is deeply complicated. For example, it is not clear why it is correct to classify "customer deposits at banks" as a privately issued instrument, as Dr. Montgomery claims. Even if that were a correct classification, unpacking why those deposits are treated as part of the money supply, while other instruments are not, would prompt a complicated deep dive into Federal Reserve policy. And that is only the beginning of the problem: The parties would also need to explore why the Federal Reserve does *not* treat other privately issued instruments—most notably, stablecoins like USDC—as part of the money supply, as well as exploring the differences between stablecoins and customer deposits at banks.

Finally, after all that, the Government would have to explain to the jury why this lengthy detour into the intricacies of determining the money supply has nothing to do with any issue the jury faces. This is highly prejudicial. The jury will naturally assume that, if an expert economist is allowed to testify at length about something, it must be important. That would be misleading. There is no legal reason why the fact that privately issued instruments may, or may not, be part of the money supply is relevant to this case. The defense should not be permitted to send the jury on this confusing, time consuming, and misleading detour through irrelevant issues.

CONCLUSION

For the reasons set forth above, the Government respectfully requests that the Court exclude the defendant's proposed expert testimony.

Respectfully submitted,

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By: /s/
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